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### **REMARKS**

# **Pending Claims**

Claims 1-13 and 16-25 are currently pending.

# Amendments to the Claims

Claim 14 is hereby cancelled and rewritten as new claim 25 in order to remove the chart lines and correct typographical errors. Claim 1 is amended to conform to claim 1 as originally filed in which a method of treatment was claimed, and to limit R<sup>9</sup> and R<sup>10</sup> taken together to only bivalent radicals. Claims 16 and 17 are amended for clarification. Claims 3-6, 9 are amended to remove the phrase "a quaternary amine". Claim 9 is amended to limit R<sup>9</sup> and R<sup>10</sup> taken together to only bivalent radicals. Claim 18 is amended in the manner discussed below. The aforementioned amendments are made without disclaimer of or prejudice to the subject matter deleted therein. Support for the amendments is found in the Specification and the claims as originally filed.

## Claim Rejections - 35 USC § 102

The Examiner rejects claims 1 and 16-17 under 35 USC § 102(b) as being anticipated by U.S. Patent No. 6589950 (Ciszewski) which the Examiner states is the equivalent of WO 01/09134 (see Office Action mailed October 8, 2008 at page 2). Applicant does not find US 6589950 to be in the same family as WO 01/09134. Nonetheless, Applicant will address the rejection using WO 01/09134 and the PCT publication date of February 8, 2001.

The Examiner relies on Examples 147 and 151 of WO 01/09134, which Applicant finds on pages 39 and 40 respectively. The Office Action shows the structures of these two structures

# Example 147:

# Example 151:

and states that "these correspond to RI7=H, B=choice (a), with E and F ring as phenyl and R2 as aminocarbonyl. A= choice (b), XI= NH, R3=R4=methoxy, m=1 or 2" (see Office Action mailed October 8, 2008 at pages 2-3).

Applicant respectfully submits that as amended, claims 1 and 16-17 are not anticipated by WO 01/09134 as the reference does not show the utility of the compounds presented therein for the treatment of HIV infection.

# Claim Rejections -35 USC § 103

The Examiner rejects claims 1, 2, 5-9 and 16-18 under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6897307 (Ciszewski) (see Office Action mailed October 8, 2008 at pages 3-4). Specifically, the Office Action refers to Example 3, experiment H:

#### and states that:

This correspond to R17=H, B=choice (a), with E and F ring as phenyl and R2 as isopropyl. A= choice (b), X1= NH, R3= methoxy, m=1. The difference is that this has R4=H, whereas the claims call for R4=methyl (note that roles of R3 and R4 can be reversed), i,e, the claimed compounds have an extra methyl (or two extra methyls for claim 6). However, the reference teaches such as equivalence, as R3 (or R4, R6 or R7) can be H or methyl; seen column 2, lines 59-61). Hence, the option of an additional methyl is taught by the reference. The compounds are used to inhibit the protein tyrosine kinase syk (column 6, lines 34-35).

# (Office Action mailed October 8, 2008 at page 4).

Applicant respectfully submits that none of the exemplified compounds of US 6897307 have a ring (corresponding to the present ring F) carrying at least 2 substituents which is a characteristic of the present compounds, namely the present R<sup>3</sup> substituents do not encompass hydrogen and the R<sup>4</sup> substituent does not encompass hydrogen and m is at least 1. Accordingly, one skilled in the art would not be directed to the present compounds based on the disclosure of US6897307. Furthermore, the compounds of US 6897307 are described as inhibitors of the protein tyrosine kinase syk, which is, as mentioned in the document, an activator of pro-inflammatory cells driving an allergic response. Thus, the compounds of the prior art document are useful in the treatment of inflammatory or obstructive airway diseases, which is quite different from the activity exhibited by the present compounds, namely an anti-HIV activity. For this reason also, one skilled in the art would not be motivated to take US6897307 into account when looking for anti-HIV compounds and thus based on the

disclosure of this prior art document, would not arrive at the anti-HIV compounds of the present invention.

### Claim Rejections - 35 USC § 112

The Examiner rejects claims 1-13 and 16-20 under 35 U.S.C. 112, second paragraph, "as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention" (Office Action mailed October 8, 2008 at page 5).

In particular, the Examiner rejects the inclusion of the phrase "a quaternary amine" in the claims. Applicant has amended the claims to delete the rejected phrase "a quaternary amine" and thus believes that this basis of rejection is rendered moot.

Claim 18 is rejected under 35 U.S.C. 112, second paragraph, for the inclusion of the phrase "ligand" (Office Action mailed October 8, 2008 at page 5). Applicant refers the Examiner to the examples in the Specification page 28, lines 8-9 and page 28, lines 16-17 and to the Examples B1a) to f) on pages 67-70.

The Examiner also rejects claim 18 for the inclusion of product I-g in step f (Office Action mailed October 8, 2008 at page 5). Applicant has amended step f in claim 18 such that the  $C_{1-6}$ alkanediyl in formula (I-e-1) is amended into  $C_{1-5}$ alkanediyl. The resulting product of formula (I-g) may remain unchanged since it indicates  $C_{1-6}$ alkanediyl, which is hence 1 extra carbon atom resulting from the reduction of the carbonyl function of (I-e-1). Applicant believes that this amendment to claim 18 renders the rejection moot.

The Examiner also rejects claim 18 for inclusion of the "omnibus process, near the end of the claim, "or, if desired, further converting compounds of formula (I) into each other following art known transformations' "(Office Action mailed October 8, 2008 at page 5). Applicant has amended claim 18 to remove this phrase and believes that this amendment renders the rejection moot.

The Examiner also rejects claim 18 under 35 U.S.C. 112, first paragraph, "because the specification, while being enabling for XI choices for A (in option a) of claim 18) or B (in option b) of claim 18) bound on the left by N, 0 or S, does not reasonably provide enablement for XI choices bound on the left by C" (Office Action mailed October 8, 2008 at page 5).

Applicant respectfully disagrees with the Examiner's assertion. However, in the interest of expediting allowance, Applicant has amended claim 18 to include the phrase "and wherein  $X_1$  represents -NR<sup>5</sup>-, -O- or -S-". Applicant believes that this amendment to claim 18 renders the rejection moot.

The Examiner also rejects claim 18 for under 35 U.S.C. 112, first paragraph, "because the specification, while being enabling in step c) for R17b as optionally substituted benzyl or

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phenethyl, does not reasonably provide enablement for other choices, e.g. methyl" (Office Action mailed October 8, 2008 at page 6).

Applicant respectfully disagrees with the Examiner's assertion. However, in the interest of expediting allowance, Applicant has amended claim 18 to remove the term "optionally" in step c) in the definition of R<sup>17b</sup>. Applicant believes that this amendment to claim 18 renders the rejection moot.

# Claim Objections

The Examiner objects to claims 14 and 21-24 "as being dependent upon a rejected base claim" and states that these claims "would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims" (Office Action mailed October 8, 2008 at page 6). Applicant respectfully points out that as amended in the Preliminary Amendment claim 14 is an independent claim. Note: Claim 14 is hereby cancelled and rewritten as new claim 25 in order to remove the chart lines and correct typographical errors. Thus, Applicant requests further information on this objection.

# **CONCLUSION**

The Commissioner is hereby authorized to charge any deficiency or credit any overpayments necessitated by this Amendment to Deposit Account No. 10-0750/PRD2100USPCT/AGK.

Early favourable action on the merits is respectfully requested. Applicant respectfully requests that a timely Notice of Allowance of claims 1-13 and 16-25.

Respectfully submitted,

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